

July 31, 1946

Dr. E. L. Tatum
Yale University
New Haven, Connecticut

Dear Ed:

I have just talked to Mary about morphological types that occur in wild type strains. In our mustard gas controls we didn't get any, but in some of the other crosses involving wild types they have come out, particularly non-conidial types.

I am sure that the only way you can take care of this is to be sure that you started with wild type strains that are known to be free from all morphological types.

As for the frequency of cystine and methionine mutants, Norm and the other people found about 50% of the biochemical mutants from mustard gas treatment belong in this category. This is probably about the same as the frequency in X-ray or ultra-violet material. Incidentally, Dave should have all of the quantitative data on the mustard gas mutants.

It is certainly true that biochemicals are not frequent in untreated material, however some have occurred. For example, Mary found two in B-6 mutants, one was a cystine-methionine type and the other was the yeast extract mutant. These certainly were not originally present in the B-6 mutant because the mutants in which they occurred were not pure for them.

Mary would like to try the adenine purple mutant if you would care to send it. It is probably the same as the ones we already have since all of the purple ones so far seem about the same, but still it would be good to have a direct test of it.

Things are beginning to straighten out here and most of the people are in a good position to get to work now. I am not quite as fortunate, but I hope to be soon.

With best regards to you and the Bonners and others,
I am

Sincerely yours,

G. W. Beadle

GWB:gz

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